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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,050	08/30/2001	Genaro Antonio Fernandez Orozco	10008276-1	8477

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EXAMINER

SEVER, ANDREW T

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 11/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/943,050

Applicant(s)

OROZCO, GENARO ANTONIO  
FERNANDEZ

Examiner

Andrew T Sever

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,5-8,11-15 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5-8,11-15 and 18-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 09 October 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: .

## DETAILED ACTION

### *Drawings*

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on Oct. 9 2002 have been approved. A proper drawing correction or corrected drawings are required **in reply to the Office action to avoid abandonment of the application**. The correction to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5-8, 11-15, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinman et al. (US 5,940,049).

Hinman et al. teaches in figure 2 a system for providing an overhead image (49), comprising a scan region that receives a document (13) containing data to be projected; an illumination element that illuminates (17) the document to produce image light; means for capturing and digitizing the image light as digital information a camera or CCD (15), as is claimed by applicant's claim 15; and a video subsystem that produces a projection image (lamp 29, LCD 39, projection lens 48) from the digital information. Hinman teaches a CPU (21) for processing the digital information before receipt by the video subsystem. Hinman teaches in column 2 lines 21-45 that the system includes digital

means for substantially enhancing the readability of the digital image as is claimed in applicant's claims 8 and 14.

Hinman further teaches in Figure 6 a flow chart for operating the system. The image inputted (112) by the camera (15) is processed by an application program ran in the CPU. The application program allows the user to modify the image through a keyboard input and/or via a stylus & digitizer input. Hinman teaches that the image can be displayed and/or printed by a printer (132), which inherently prints a printable file produced by the CPU as is claimed in applicant's claims 6, 12, and 19. The image can also be transmitted via a modem or network to other computers and inherently the image would be transmitted as an electronic file of the digital information, which could inherently be stored as is claimed in applicant's claims 7, 13, and 20.

Hinman, however, does not teach specifically that the digitally enhancing means is operable to determine a background color of the document and replace that background color with a replacement color to optimize visual contrast between text in the document and the replacement color as well as perform edge enhancement as claimed in applicant's claims 5, 11, and 18. Hinman does teach in column 2 lines 21-46 that the system is provided with means for modifying the image such as filtering the image to correct for lens aberrations and presumably other errors, so that the projected images are much improved in both resolution and readability with respect to the ambient illumination environment. Presumably this would have included the ability to change the color range/background color, increase contrast, and/or perform edge enhancements. Further all three of these characteristics were commonly modified by graphics related application

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software. One with ordinary skill in the art at the time the invention was made would have recognized that well known scanners at the time such as those that were found in scanner/projectors as taught by Hinman et al. and modern copiers had the ability for the user to change the color range/background color, increase the contrast, and/or perform edge enhancements as shown in the following two examples:

- i. Tse et al. teaches an example of changing the color range/background color in column 1 lines 50-63. Tse teaches an improved method for estimating the background gray-level of an image in a scanned document and optimizing background suppression. As explained in column 1 lines 6-49 it was well known in scanning systems such as copier systems to remove the background color from the text or remove background noise that leads to low contrast. Figure 11A shows a picture that has not been enhanced, where as fig 11D shows where the CPU of the scanner has changed the background so that more detail can be seen with higher contrast. Since it is highly beneficial to have improved contrast in a scanned/projected image and since it is well known in the art to replace a background color with one that optimizes visual contrast between text and/or other interesting image data; it would have been obvious to one of ordinary skill in the art at the time of the invention to include in the digitally enhancing means of Hinman et al. the ability to determine a background color and to replace it with a background color which optimizes visual contrast as is well known in the art and as is taught by Tse et al.

ii. An example of edge enhancing is taught by Yabuuchi et al. (US 4,992,955). Yabuuchi teaches a display apparatus that performs edge enhancement of displayed text to improve contrast and readability. Yabuuchi teaches in column 2 lines 23-44 that a high quality image is produced by using an electronic means for detecting the edge of characters, patterns, and other interesting image details and then forcibly displaying a pixel on the edge as black or white to emphasize it. This is done as is explained in column 2 lines 45-50 because it makes contours easy to see when contrast with respect to the background color is small. Accordingly it would have been obvious to one of ordinary skill in the art at the time the invention was made to further include in the digitally enhancing means of Hinman et al. the ability to enhance the edges of characters, patterns, and other interesting image details as is well known in the art and as is taught by Yabuuchi et al. in order to further enhance the readability/viewability of the projected image as is claimed in applicant's claims 5, 11, and 18.

With regards to applicant's claims 8 and 11-13 the system taught by Hinman makes it inherent that a method for using it (as is claimed in applicants' claims 8, 11-13) exists and Hinman also claims the methods in his claims 13-18.

***Response to Arguments***

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4. Applicant's arguments with respect to claims 1, 5-8, 11-15, and 18-20 have been considered but are moot in view of the new ground(s) of rejection.

Applicant amended independent claims 1, 8, and 14 to include material in now canceled claims. Accordingly all claims are now rejected under the 35 USC 103 rejection which dealt with the now canceled claims. Applicant further requested that the examiner cite a reference(s) to support the assertion of Official Notice that were made in the previous 35 USC 103 rejection in the previous office action (paper number 3) which has now been applied to all still pending claims. The 35 USC 103 rejection has been modified to include two examples supporting the assertion of the Official Notice: Yabuuchi et al. (US 4,992,955) and Tse et al. (US 6,198,845). These examples are added merely as evidence of a prior well known statement(s), and do not result in a new issue and the rejection is therefore made final.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,400,371 to Helman et al. determines the background color and modifies the foreground color in response to the background color in order to enhance contrast.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Sever whose telephone number is 703-305-4036. The examiner can normally be reached M-TH 8:30-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russell Adams can be reached at 703-308-2847. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

AS  
November 21, 2002

  
RUSSELL ADAMS  
CUTTING-EDGE PATENT EXAMINER  
TECHNOLOGY CENTER 2800